#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022257 Address: 333 Burma Road **Date Inspected:** 28-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Zhu Zhong Hai No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG)

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD** 

WELDING:

WELDING:

Segment 12BE

This QA Inspector observed ZPMC qualified welding personnel identified as 067752 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBE12C-014; located On Orthotropic Box Girder (OBG) Edge Plate to Cantilever Bracket CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. This QA Inspector observed the base material appears to have been preheated by a torch prior to welding. The Critical Welding Repair Report (WRR) was B-WR20511. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-1G (1F) FCM-Repair-1. See attached photo for further details.

Segment 13AW

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC qualified welding personnel identified as 048433 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3013C-092; located On Orthotropic Box Girder (OBG) Floor Beam to Bottom Plate Stiffener CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang .This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhang Qiang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-T-2233-ESAB. See attached photo for further details.

#### Segment 13AW

This QA Inspector observed ZPMC qualified welding personnel identified as 048698 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3013B-149; located On Orthotropic Box Girder (OBG) Floor Beam to Side Plate Stiffener CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang . This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhang Qiang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-T-2233-ESAB.

### Segment 12CE

This QA Inspector observed ZPMC qualified welding personnel identified as 067752 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBE12C-025; located On Orthotropic Box Girder (OBG) Edge Plate to Cantilever Bracket CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. This QA Inspector observed the base material appears to have been preheated by a torch prior to welding. The Critical Welding Repair Report (WRR) was B-WR20511. ZPMC Quality Control (QC) Mr. Wang Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-4G (4F) FCM-Repair-1.

#### Segment 12AE

This QA Inspector observed ZPMC qualified welding personnel identified as 067752 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBE12B-011; located On Orthotropic Box Girder (OBG) Side Plate to Service Platform Bracket CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. This QA Inspector observed the base material appears to have been preheated by a torch prior to welding. The Critical Welding Repair Report (WRR) was B-WR20511. ZPMC Quality Control (QC) Mr. Wang Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS\_B-P-2214-TC-U4b-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)





# **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhune,Manoj	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer